

Amendments to the Specification

Please replace the paragraph beginning at page 59, line 11, with the following redlined paragraph.

Groups of 8 female BALB/c mice (Charles River, St-Constant, Quebec, Canada) ~~were~~are immunized by intramuscular injection of 100 µl three times at two- or three-week intervals with 50 µg of recombinant pCMV-GH encoding modified ~~SHB-GAS-102~~ SHB-GAS-102 (SEQ ID NO:1), ~~SHB-GAS-103~~ SHB-GAS-103 (SEQ ID NO: 3), and ~~SHB-GAS-104~~ SHB-GAS-104 (SEQ ID NO: 5) genes in presence of 50 µg of granulocyte-macrophage colony-stimulating factor (GM-CSF)- expressing plasmid pCMV-GH-GM-CSF (Laboratory of Dr. Stephen A. Johnston, Department of Biochemistry, The University of Texas, Dallas, Texas). As control, groups of mice ~~were~~are injected with 50 µg of pCMV-GH in presence of 50 µg of pCMV-GH-GM-CSF. Blood samples ~~were~~are collected from the orbital sinus prior to each immunization and seven days following the third injection and serum antibody responses ~~were~~are determined by ELISA using the corresponding His-tagged labeled ~~S. pyogenes~~ S. pyogenes recombinant polypeptides as coating antigens. The production and purification of these His-tagged labeled ~~S. pyogenes~~ S. pyogenes recombinant polypeptides are presented in Example 6.

Please replace the paragraph beginning at page 61, line 10, with the following redlined paragraph.

Bacteria ~~were~~are grown in Todd Hewitt (TH) broth (Difco Laboratories, Detroit, Mich.) with 0.5% Yeast extract (Difco Laboratories) and 1% peptone extract (Merck, Darmstadt, Germany) at 37°C in a 8% CO₂ atmosphere to give an OD₆₀₀ nm of 0.600 (~10⁹ CFU/ml). Dilutions of anti-SHB-GAS-102, anti-SHB-GAS-103, anti-SHB-GAS-104, or control sera ~~were~~are then added and allowed to bind to the cells, which ~~were~~are incubated for 2 h at 4°C. Samples ~~were~~are washed 2 times in blocking buffer [phosphate-buffered saline (PBS) containing 2% bovine serum albumin (BSA)], and then 0.5 ml of goat fluorescein (FITC)-conjugated anti-mouse IgG+IgM diluted in blocking buffer ~~was~~is added. After an additional incubation of 60 min at room temperature, samples ~~were~~are washed 2 times in blocking buffer

and fixed with 0.3% formaldehyde in PBS buffer for 18-24 h at 4°C. Cells ~~were~~are kept in the dark at 4°C until analyzed by flow cytometry (Epics®XL; Beckman Coulter, Inc.). Ten thousands intact ~~S. pyogenes~~ S. pyogenes cells ~~were~~are analyzed per sample.